

#6---Big Block Stroker 6 Pak Dyno Test (7279)
6 Pak to Go

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This is the dyno test of what has become a very popular engine combination in several ways.

A 500 cubic inch stroker for a street (pump gas) and once in awhile we'll run it down the track type of request that we commonly get. This customer wanted gobs of torque for fun on the street and a 6-pak carb set up. The 500 engine will have gobs of low end torque to start with, but, this customer wanted as much torque as possible for his 4,000# car. To get this, we used one of our hydraulic roller camshafts (HER3642BL).

The 6 pak set up was new with all factory sized fuel lines. These small fuel lines concerned us as to whether we would be able to get enough fuel through them to feed this monster. We were estimating 570-580 Horsepower maximum for that reason alone. This is a 493 engine with our H.P. ported Edelbrock heads, our roller rockers (1520S-16) and headers.

Dyno Test #1(6-Pak)

<u>RPM</u>	<u>Horsepower</u>	<u>Torque</u>	<u>BSFC</u>
3300	372.60	593.00	0.485
3500	395.40	593.30	0.043
3700	442.50	628.10	0.356
3900	482.20	649.30	0.419
4100	516.70	661.90	0.437
4300	539.20	658.60	0.431
4500	566.70	663.40	0.396
4700	582.20	650.50	0.389
4800	593.00	648.90	0.403
4900	600.10	643.20	0.387
5000	604.00	634.50	0.400
5100	610.50	628.70	0.408
5200	611.50	617.60	0.408
5300	619.80	614.20	0.407
5400	621.50	604.50	0.415
5500	616.00	588.20	0.426
5600	615.40	577.20	0.436
5700	619.80	571.10	0.443
5800	618.20	559.80	0.439

Average:

4550	540.30	625.40	0.416
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Minimum:

3300	372.60	559.80	0.356
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Maximum:

5800	621.50	663.40	0.485
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As you can see from Dyno Test #1 the engine pulled up to 621 HP and 663 ft/lb torque. It was well above 500ft/lb torque at 3.000 rpm and averaged 526 ft/lbs from 3300 to 5800 rpm. This was a very smooth, super torquey engine. Also note that the BSFC were nearly perfect throughout the majority of the run.

Dyno test #2(4-Bbl Victor)

<u>RPM</u>	<u>Horsepower</u>	<u>Torque</u>	<u>BSFC</u>	<u>Volumetric efficiency</u>
3000	341.00	597.00	0.422	91.9%
3100	344.80	584.10	0.444	89.8%
3300	359.40	571.90	0.441	86.7%
3500	389.10	583.80	0.411	86.9%
3700	419.50	595.50	0.398	89.4%
3900	468.30	630.60	0.386	95.9%
4100	515.30	660.10	0.381	101.0%
4300	549.30	670.90	0.396	103.3%
4500	580.60	677.60	0.398	104.7%
4700	601.50	672.20	0.403	104.5%
4900	618.00	662.50	0.421	104.7%
5000	626.10	657.60	0.410	104.8%
5100	629.00	647.70	0.402	103.8%
5200	635.00	641.40	0.417	103.8%
5300	645.60	639.80	0.429	103.9%
5400	641.10	623.60	0.408	103.3%
5500	641.50	612.60	0.438	102.2%
5600	639.50	599.80	0.443	101.8%
5700	644.40	593.70	0.446	100.8%
5800	639.30	578.90	0.437	99.8%

Average:

4400	527.10	626.80	0.413	98.4%
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Minimum:

3000	341.00	571.90	0.381	86.7%
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Maximum:

5800	645.60	677.60	0.451	104.8%
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Next we installed a Edelbrock Victor 440 intake #5415 along with our deep port match (I320) and a 950 HP Holley carb. Keep in mind that the 6 pak carb set up flows 1300cfm and we are using a single 950cfm carb and this test tells you three things.

#1. The 6 pak intake manifold is not very efficient.

#2. Regardless of what any one component flows (in this case, 3 2bbl carbs) it won't do much if the rest of the system (manifold & heads) won't flow with them. The power you can produce will always be limited by the most restrictive component in your combination.

#3. This Victor 440 intake really did the job!

As seen in test # 2 with the 950 HP carb and Victor intake the horsepower was less, as you would expect until 4100 rpm but it peaked at 26HP more than the 6 pak at the same rpm, 5300. The torque was lower as well until 4,000 rpm but it eventually peaked at 17 ft/lbs more at 4500rpm or 200 rpm higher. These BSFC numbers were even better than the 6 pak. Realizing now that the 6 pak carbs will flow enough fuel we would build this engine a little differently and make even more power. Having seen what the single 4 bbl and Victor intake did, we know that with some changes this engine could make much more power. These combos make very good street engines with plenty of tire shredding power down low and should take a 3700# car/driver into the mid-elevens with cruiser gears and minimal stall speed. With some serious chassis parts and these combinations this baby would scare the 10s. if you can hook it up!

We can supply any and all the parts you need to build either one of these engine combinations at home or we'll do it for you. The owner of the car said it was frightening to drive on the street. The torque was so explosive that you had to be very careful with your right foot. No, this car hasn't been to the strip yet.

(2011) Parts list for this engine: 496 stroker, 4.360 bore, 4.150 stroke, Diamond pistons with 10.6:1 CR. Works well with 92 Octane gasoline. Stroker kits are custom-order. Edelbrock RPM heads w/full CNC porting with 2.19" intake valves (p/n 60929-S3). 3X2 Bbl Edelbrock intake manifold with deep port match (p/n 2475DPM) and Holley 2Bbl carbs. Edelbrock Victor standard port intake with deep port match p/n 2954DPM and Holley 950HP carb. Hydraulic roller camshaft (p/n HER3844BL), 1.6 ratio roller rockers complete with shafts (p/n 15203), custom-length pushrods, MSD billet distributor (p/n 8546) with custom curve, 1" open carb spacer, 2" TTI headers.